Comparative Assessment of Online Activities for Learning Statistics Outside the Classroom

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What is the most effective way to learn Statistics outside of the classroom? Homework problems, whether recommended for practice or mandatory for a grade, is often fruitless, and results in either being copied to assure a good grade, or skipped altogether. In a subject where practice is important, most efforts to learn are often saved for exam weeks, so how can a good habit be enforced?

Through the use of Blackboard tools, a class can enjoy hybrid advantages for learning. While homework problems all have the same correct answers and are ripe for copying, such is not the case for discussions, case study responses, article reviews, or even quizzes from large test banks. But which methods are the most effective, and how much do they need to be worth to be given serious consideration?

In this study, results from multiple Business Statistics sections taught by the same instructor over two years will be analyzed. Graded assignments varied by class, to include: online quizzes taken from a test bank; or discussion questions in which students shared real-life applications of statistics in their lives; or regular reviews of articles, news sources or polling sites where statistics is prominently used. Weights in each case varied from 1 to 5% of the course grade.

In this paper the results of each approach will be compared, as will the impact of different grading weights, by analyzing the scores on the major exams as well as the scores and submission statistics on the assignments.